REMARKS

Claims 22-32, 41-43, 46-55, 93-102 are pending in this application. The Office states "claims 22-32, 41-43, 46-55, 93-102 would be allowed if the above objections were overcome." The Office has objected to the amendments to Col. 1, lines 9-15 and Col. 1, lines 16-20, which were made in the amendment filed May 21, 2001. Applicant has corrected these amendments to the specification herein and requests that the Office enter these amendments. The Office has objected to manner in which claims were added stating "all claims which are added or amended must be wholly underlined." Applicant has amended the listing of claims to wholly underline the added or amended claims. Applicant requests that the Office enter these amended claims into the application. Lastly, the Office has required an explanation of the support in the disclosure for added claims 93-102. This is provided below. The Office Action is an *Ex parte Quayle* action and was responsive to Applicant's communication filed or about May 19, 2009.

Amendments to Claims 93 - 95

Claims 93 - 95 are amended to correct a mistake. In claims 93 and 94, the term "first set" should have been "second set." The word "first" has been deleted and the word "second" inserted in its place, in both claims. The limitations of each claim correctly embody the teaching of the second set of mirrors in the specification. In claim 95, the word "mirrors" should have been singular instead of plural. The "s" has been deleted. Applicant request that this change be entered into the application.

Support for Added Claims 93-102

Claim 93: The mirror assembly as in claim 28 wherein the second set of mirrors includes three tertiary mirrors (Fig. 3, items 100, 102 and 106, Table III – Group II).

Claim 94: The mirror assembly as in claim 93 wherein at least two of the tertiary mirrors (Fig. 3, items 100 and 102) of the second set of mirrors reflect light beams downwardly through the substantially vertical aperture (Col. 6, lines 37-41, Group II scan lines).

Claim 95: The mirror assembly as in claim 28 wherein the mirror assembly is for scanning bar codes on articles (Col. 1, lines 27-32), and the light reflected downwardly

through the substantially vertical window from the tertiary mirrors of the first set scans a bar code on the top surface of an article (Fig. 2, items 30, col. 5-6, table III, col. 6, lines 44-46).

Claim 96: The mirror assembly as in claim 95 wherein the light reflected downwardly produces beams that intersect one another (Col. 6, lines 44-46, Fig. 8, items N1 and H1).

Claim 97: The mirror assembly as in claim 96 wherein the light beams from the substantially vertical aperture scan the top and customer side of the article (Fig. 1, items 30 and 36, Col. 3, lines 35-38), and the light beams from the substantially horizontal aperture scan the bottom of the article and its leading and trailing sides (Fig. 1, items 28 and 36, Col. 3, lines 39-43).

Claim 98: The mirror assembly as in claim 28 wherein the mirror assembly includes at least six primary mirrors (Col. 4, lines 32-36, Fig. 3, items 50-72), at least five secondary mirrors (Col. 4, lines 32-36, Fig. 3, items 74-98) and at least four tertiary mirrors ((Col. 4, lines 32-36, Fig. 3, items 100-106) said at least six primary mirrors reflecting light to said at least five secondary mirrors, and said at least five secondary mirrors reflecting light to said at least four tertiary mirrors (Col. 4, lines 32-36, Fig. 3, items 50-106).

Claim 99. The mirror assembly as in claim 28 wherein the light source includes at least one laser (Fig. 1, item 12, Col. 2, lines 60-61), further including a mirrored polygon having at least three sides (Fig. 1, item 16, Col. 3, lines 8-10), each side having a mirrored surface (Fig. 1, item 16, Col. 3, lines 8-10) and being disposed at an angle from the axis of the polygon different than the angle of the other two sides (Fig. 1, item 16, Col. 4, lines 23-31), and wherein the tertiary mirrors of the first and second sets of mirrors (Fig. 3, items 100-106) receive light that has been reflected from the mirrored polygon and produce at least six scan lines through the substantially vertical aperture during each rotation of the mirrored polygon (Col. 6, lines 37-46, Fig 3, items 100-106, Table III, all scan lines for group I and III).

Claim 100. The mirror assembly as in claim 99 having just a single substantially vertical aperture (Figs. 1 and 2, item 30) and just a single substantially horizontal aperture (Figs. 1 and 2, item 28), further including a housing having a first housing section and a second housing section connected at proximate ends forming a generally L-shaped structure (Figs. 1 and 2, item 32), the substantially vertical aperture being located in the first housing section (Figs. 1 and 2, item 30) and the substantially horizontal aperture being located in the second housing section (Figs. 1 and 2, item 28).

Claim 101. The mirror assembly as in claim 98 wherein the source of light includes at least two lasers (Fig. 10, items 140 and 142, Col. 6, lines 49-50).

Claim 102. An optical scanner comprising:

a housing (Figs. 1 and 2, item 32) having a substantially vertical surface containing a first aperture (Figs. 1 and 2, item 30) and a substantially horizontal surface containing a second aperture (Figs. 1 and 2, item 28);

a single laser (Figs. 1 and 4, item 12) which produces a laser beam within the housing (Fig. 1, item 22);

a polygon spinner (Figs. 1, 3 and 4, item 16) having mirrored facets (Fig. 3, items 108-114) for reflecting the laser beam in a plurality of directions to produce a plurality of scanning beams including a first group of scanning beams, a second group of scanning beams, and a third group of scanning beams (Figs. 6, 7 and 8, Col. 1, lines 41-52); and

a plurality of pattern mirrors (Fig. 1, item 18), including a plurality of groups of pattern mirrors (Fig. 3, items 50-106, Col. 4, lines 32-36), for reflecting the first group of scanning beams through the first aperture to produce a first scan pattern consisting of a plurality of intersecting scan lines (Table III, group I, Col. 6, lines 43-46), for reflecting the second group of scanning beams through the first aperture to produce a second scan pattern consisting of a plurality of intersecting scan lines (Table III, group II, Col. 6, lines 37-42), and for reflecting the third group of scanning beams through the second aperture to produce a third scan pattern consisting of a plurality of intersecting scan lines (Table III, group III, Col. 6, lines 31-36);

wherein the pattern mirrors include

a first group of generally trapezoidal mirrors (Fig. 3, items 64, 66, 70 and 72) for reflecting the laser beam from the spinner (Col. 4, lines 32-37);

a second group of generally trapezoidal mirrors (Fig. 3, items 84, 88, 82 and 94) for reflecting the laser beam from the first group of mirrors (Col. 4, lines 32-37), including at least one mirror (Fig. 3, item 76) positioned and angled to reflect an incident beam in a substantially vertical direction to scan the bottom of an article (Fig. 3, item 26, Col. 3, lines 45-44) and at least one mirror (Fig. 3, item 74) is positioned and angled to reflect an incident beam rearwardly to scan the forward side of the article (Col. 3, lines 44-47, sub-group IIIb) ; and

a third group of generally trapezoidal mirrors for reflecting the laser beam from some of the mirrors in the second group of mirrors (Fig. 3, 100-106, Col. 4, lines 32-27),.

CONCLUSION

Applicant has corrected each of the objections made by the Office and asks that the claims now be allowed. Please charge any fees that might be due, excluding the issue fee, to deposit account 14-0225.

Respectfully Submitted,

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(Electronically filed)

/Harden E. Stevens, III/

Harden E. Stevens, III
Reg. No. 55,649

NCR Corporation
1700 South Patterson Blvd.
Dayton, Ohio 45479

(803) 939-6505 (office phone)
(803) 939-5521 (fax)
Email: steve.stevens@ncr.com